IFRS in the BRIC countries revisited: application of the IFRS orientation indexes

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Abstract

The author revisits his work on the culturally derived accounting orientations of the BRIC countries, based on Geert Hofstede's work on cultural dimensions (Hofstede, 1980) *and the hypothetical derivation of four related cultural accounting dimensions (professionalism, uniformity, conservatism, and secrecy) by S. J. Gray.* (Gray, 1988) (Borker, 2012a) *The study is updated and re-evaluated through the application of the author's more recently developed tools for quantifying the degree of IFRS orientation -- the Composite IFRS Orientation Index and the Expanded IFRS Orientation Index.* (Borker, 2014b) *The study goes beyond the inputs considered in the previous BRIC analysis to include important socio-cultural factors such as corruption, political risk, educational level and business regulatory climate. These factors are considered as attributes of a new proposed fifth cultural accounting dimension beyond Grey's original four, designated as stewardship.*

Introduction

The emerging economies Brazil, Russia, India and China, first identified as the BRIC countries in 2001 by Goldman Sachs (O'Neill, 2001) were considered as most likely to enjoy sustained high growth and to become the ascendant economies during this century. They were conceptually paired into two groups: (1) Brazil/Russia, identified as large land mass countries with relatively low populations rich in exploitable and exportable natural resources, and (2) India/China, identified as having world's two largest populations with China expected to be ascendant in manufacturing and India expected to grow most in the service sector.

Since 2001 several other configurations of promising emerging economies have been identified, most notably the eleven countries of the 3G Group, identified by Citicorp economists in 2011. (Buiter & Rahbari, 2011) That group, also, includes two members of the BRIC, namely, India and China, while Brazil and Russia, the vast natural resource providers forming the "front half" the BRIC, were, for some reason, omitted in the Citicorp study.

Nonetheless, the BRIC economic label, with and without a later alternative configuration as "BRICS" to add the Republic of South Africa, has maintained a persistent growing presence in academic research publications and conferences to the present time. One need only conduct an advanced Google Scholar search for articles and books containing the words BRICs, BRIC countries or BRIC economies in their title by time period. The graph below summarizes the number of articles and titles containing the words BRICs, BRIC countries or BRIC economies during sequential time blocks within the period from 2001 through 2016.

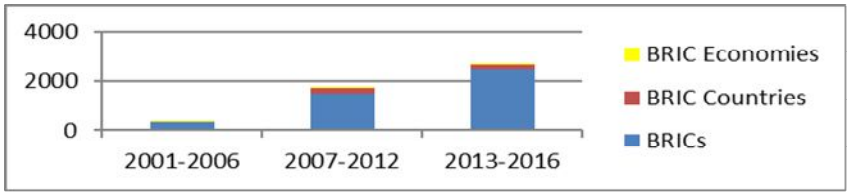

Figure 1: Frequency of Articles and Book Titles containing "BRIC Economies," "BRIC

Countries" or "BRICs" by Time Period

Based on this simple measurement, it appears that research on the BRIC countries is not only alive and well, but on the increase. If, however, we narrow our focus to publications with both the words "BRIC" and "IFRS," in their title, we find that since 2001, there has been only one article in English, that one having been published by the current author in 2012 (Borker, 2012a). In addition, there is a Master's Thesis in Portuguese written in 2014 dealing with business mergers in the BRICs relating to IFRS 3 (Bandera, 2014). Given the above, there is justification to revisit the subject of IFRS among the BRIC countries and to apply a more refined research methodology.

As indicated in my first article on IFRS among the BRICs, all the BRIC countries have committed to the adoption of or convergence to some form of IFRS. (Borker, 2012a) Below is a brief update of information on the official status of IFRS in each of the BRIC countries.

Brazil adopted IFRS 2010 as issued by IASB and requires its use for the consolidated financial statements of all listed companies. These companies must simultaneously provide reporting in accordance with CPCs, the new Brazilian GAAP. It is claimed that there are a few differences between CPCs and IFRS. Although consolidated financial statements are prepared in accordance with IFRS, there are some limitations on options and additional disclosures required by Brazilian law, e.g., revaluation of PP&E is not permitted by Brazilian corporate law. CPCs are required for all regulatory filings. Besides company consolidated financial statements, all listed banking and insurance companies need to prepare additional consolidated financial statements in accordance with IFRS as published by the IASB. In as much as CPCs are claimed to show few differences with IFRS, Brazil has no plan or timetable for the convergence of CPCs and IFRS. (PWC, 2015)

Russia chose direct adoption of IFRS as issued by the IASB in 2013 and required its use for the consolidated financial statements of all listed companies as well as for standalone financial statement of all listed companies with no subsidiaries. Subsidiaries of foreign companies (that are legal entities incorporated in accordance with the legislation of the foreign states) listed on Russian stock exchanges are permitted to prepare their financial statements in accordance with other commonly known international standards, e.g. US GAAP. Russian GAAP, which differs *significantly* from IFRS, is required for regulatory filings and financial reporting of entities not covered by specific requirements to use IFRS. (Borker, 2012) The Law on consolidated financial statements, as revised in 2014, requires the use of IFRS financial statements for the regulatory filing of consolidated financial statements of credit institutions, insurance companies, companies whose securities are admitted for organized trading by inclusion in a quotation list, companies which are otherwise obliged by federal laws or constitutive documents to prepare consolidated financial statements, non-state pension funds, managing companies of investment funds, unit investment funds and non-state pension funds, and clearing organizations. In addition, two categories are expected to be added to this list - State Federal Unitary Enterprises determined by the Government of the Russian Federation and Open Joint Stock companies shares of which are held in the federal property, determined by the Government of the Russian Federation. Although Russia chose direct IFRS adoption to jump start reporting by most listed companies, most other companies, which are generally smaller, report in accordance with Russian GAAP. Russia does have a plan for the convergence of Russian GAAP with IFRS with a time table for this accomplishment. The time table called for convergence in 2015. This was not achieved and, presumably, the work goes on. There are still significant differences between Russian GAAP and IFRS and it is uncertain when this will be accomplished. For the time being, this process continues, along with the parallel efforts to train

and educate the vast majority of Russian accountants, accustomed to Russian GAAP, to understand and effectively use IFRS. (PWC, 2015)

India has chosen the path of IFRS convergence, not adoption. Although listed companies are permitted to issue financial statements in accordance with IASB issued IFRS, they are required to prepare financial statement in accordance with Indian GAAP. Also, Indian GAAP must be used for all regulatory filings. The Ministry of Corporate Affairs (MCA) announced on February 16, 2015 a revised roadmap for the implementation of "Ind-AS" (Indian Accounting Standards as opposed to traditional Indian GAAP), the convergence of India's accounting standards with IFRS. The roadmap provides a phased approach, primarily based on a company's net worth. For example, entities with at least INR 5000 (USD $77 million) net worth must use Ind-AS by April 1, 2016 This will also require comparative Ind AS information for the period of April 1, 2015 to March 31, 2016. Listed companies (other than those covered in first phase) as well as others having a net worth equal to or exceeding INR 2500 million (USD 38.5 million approximately) will be reporting under Ind AS from April 1, 2017 onwards. The Indian government acknowledges that certain differences have remained between the IFRS as issued by the IASB and the Ind AS in terms of carve-outs. "Carve outs" are incidences of divergence between Ind AS and IFRS. Specifically, a carve-out indicates that certain requirements of an accounting standard under IFRS will not be adopted. Some of these "carve-outs" diminish comparability of Ind AS with the globally accepted IFRS. (Attra, 2012) (PWC, 2015)

China requires that listed companies use Chinese Accounting Standards (CAS) which, the Chinese authorities claim, have substantively converged with IFRS, but are not a direct translation of IFRS, but rather principles of IFRS "re-written into a format that is easily-understandable to the Chinese reader." Furthermore, IFRS, as issued by the IASB, are prohibited for both financial and statutory reporting. The Chinese government has no plans or time table for convergence of CAS with IFRS, in as much as, it claims to have already substantially converged with IFRS and the Ministry of Finance continues to amend CAS so that its principles are in line with the IFRS in effect. Almost everything under CAS is permissible under IFRS, but CAS does not permit the full range of options available under IFRS. Still, most everything in CAS is acceptable under IFRS. At present there are a few significant differences between IFRS and CAS. China requires pooling of interest accounting on the combination of commonly controlled enterprises, which is not permitted under IFRS. IFRS also permits the reversal of certain impairment losses and this is not permitted under CAS. (Gillis, 2015) (PWC, 2015)

Statement of Purpose

This paper examines the relative potential of the BRIC countries, Brazil, Russia, India and China to establish and maintain sufficiently high quality financial reporting based on an evaluation using two quantitative measures: the Composite IFRS Orientation Index, and the Expanded IFRS Orientation Index, developed by the author in a recent study. (Borker, 2014) These measures are determined by a quantitative analysis of each country's culturally derived accounting values as they relate to IFRS. Four of these accounting values are taken from Sidney Gray's accounting value dimensions -- conservatism, uniformity, professionalism, and secrecy. To these, a fifth value dimension, stewardship, is added by the author, based on a set of four selected indexed sociocultural factors. These factors are corruption, political risk, education, and regulatory environment. The ultimate aim of the analysis is to understand the relative cultural ease with which each of the BRIC countries will adapt to IFRS relative to one another and to a selected set of comparison countries outside of BRIC to gain regional and country specific insights into strengths and opportunities for improvement. The non-BRIC countries selected for

comparison are three developed countries, Germany, Japan and the United Kingdom and one developing country, Pakistan. The results of this study are compared with those of the author's earlier study of IFRS and the BRIC countries. (Borker, 2012a)

Literature Review

Geert Hofstede published his first book on worldwide cultural value dimensions in 1980. In that book he provided index scores for individual countries across four cultural dimensions: Power Distance (PDI), Individualism (IDV), Masculinity (MAS) and Uncertainty Avoidance (UAI). (Hofstede, 1980) Later, Hofstede developed additional cultural dimensions - Long-Term Orientation (LTO) and Indulgence vs. Restraint (IVR). (Hofstede, 2001) (Hofstede, et al., 2010) These dimensions are fully described in Hofstede's website. (Hofstede, 2013)

In response to Hofstede's first book on his cultural value dimensions, Gray wrote a paper in which he posits a relationship between Hofstede individual country cultural value dimensions and a set of accounting value dimensions. (Gray, 1988) Gray identified four accounting dimensions, conservatism (opposite of optimism), uniformity (opposite flexibility), professionalism (opposite statutory control) and secrecy (opposite transparency). He related these accounting dimensions to Hofstede cultural dimension in four hypotheses:

1. The higher a country ranks in terms of individualism and the lower it ranks in terms of uncertainty avoidance and power distance then the more likely it is to rank highly in terms of professionalism.
2. The higher a country ranks in terms of uncertainty avoidance and power distance and the lower it ranks in terms of individualism then the more likely it is to rank highly in terms of uniformity.
3. The higher a country ranks in terms of uncertainty avoidance and the lower it ranks in terms of individualism and masculinity then the more likely it is to rank highly in terms of conservatism.
4. The higher a country ranks in terms of uncertainty avoidance and power distance and the lower it ranks in terms of individualism and masculinity then the more likely it is to rank highly in terms of secrecy. (Gray, 1988)

Gray qualifies his hypotheses with observations regarding the relative importance of various Hofstede dimensions in relation to his accounting dimensions. For example, in discussing Professionalism, Gray noted that Hofstede's IDV and UAI are strongly linked to his Professionalism value, while PDI is linked, but not as strongly, to the Professionalism value.

In recent years, Braun and Rodriguez quantified each of Gray's four accounting dimensions for individual countries by taking a simple average of scores for the corresponding Hofstede dimensions. (Braun & Rodriguez, 2008) In the case of scores for dimensions that have a negative or inverse relationship to a Gray accounting dimension, the Hofstede score is adjusted in the following manner. The mean score for that dimension for the total countries analyzed is subtracted from the specific country's score. Next, this value is multiplied by -1, and then added to the mean score. By using this conversion of negatively correlating Hofstede scores, they are able to create opposite positive scores for each Hofstede dimensional component of a Gray accounting dimension. By using a simple average in their computation, Braun and Rodriguez assume that all Hofstede dimensions that relate to a given Gray dimension should have an equal weight. This does not take into consideration Gray's observations regarding his hypotheses that certain Hofstede dimensions have a greater or lesser weight than others in relationship to the accounting dimensions. (Gray, 1988)

In a recent conceptual paper, Borker (Borker, 2013a) develops a revised description of the

relationship between Gray accounting value dimensions and Hofstede cultural value dimensions that provides relative weightings based on Gray's indications in his original article. He also expands the model to include two Hofstede dimensions identified after Gray's article, specifically Long-term orientation (LTO) and Indulgence versus Restraint (IVR). Table 1 below summarizes the positive and negative relationships between Gray and Hofstede dimensions, using '+' to represent a lower weight positive correlation, '+ +' to represent a higher weight positive correlation, and '-'and '- -'to represent, respectively, lower versus higher weighted negative correlation relationships. Finally '?' is used to represent no, or an uncertain, relationship between the Gray and Hofstede dimension. The use of these symbols for the first four Hofstede dimensions (see shaded area in table) were intended to reflect Hofstede's own comments in his original article on the greater or lesser importance of certain Hofstede dimensions. The use of these symbols under Hofstede's two later dimensions, LTO and IVR, indicated Borker's assumed relationship between these two dimensions and Gray's four accounting dimensions based on an a common pattern of these value dimensions for the United States, the United Kingdom and five other Commonwealth countries.

	Power Distance : PDI	Individualism : IDV	Masculinity : MAS	Uncertainty Avoidance: UAI	Long-Term Orientation : LTO	Indulgence vs. Restraint: IVR
Conservatism	+	-	-	+ +	+	-
Uniformity	+	- -	?	+ +	+	-
Professionalism	-	+ +	?	- -	-	+
Secrecy	+ +	- -	-	+ +	+	-

Table 1: Expansion of Hofstede-Gray Relationships

Also, Borker proposed an IFRS favorable accounting value profile based on Gray accounting dimensions. This profile assumed that the ideal IFRS accounting value profile for a country was one characterized by a low degree of the dimensions conservatism, uniformity and secrecy, and a high degree of the dimension professionalism. This translates into a profile of optimism, flexibility, professionalism and transparency. (Borker, 2013b) Although only published in 2013, the concept of individual country dimensional profiles and an IFRS favorable profile are applied in several studies before and after publication. These include studies of the emerging economies in Central and Eastern Europe and the 3G economies (Borker, 2012b) (Borker, 2013b)

Research Methodology

In a subsequent study, a methodology was developed for measuring the level of country's cultural IFRS orientation through two indices: the Composite IFRS Orientation Index, and the Expanded IFRS Orientation Index. (Borker, 2013a) The first of these indices quantifies the level of fit between a given country's accounting cultural values and those of IFRS. The procedure involves first establishing a methodology for quantifying each of Gray's four cultural dimensions for a given country and then adjusting and combining these scores to derive a quantitative measure of the overall level of fit with the Gray values favorable to IFRS. In developing the Gray dimensional scores the study employed methods developed by Braun and Rodriguez discussed above. The study developed three alternative versions of Gray value indices, one based on a simple averaging of Hofstede dimensions, a second based on a weighted average of the Hofstede first four cultural dimensions as discussed by Gray and a third that incorporated two later developed Hofstede dimensions, LTO and IVR. Subsequent tests of these

methods have led to the conclusion that the second version is most appropriate for scoring countries using the Composite IFRS Orientation Index.

Another index was developed from the IFRS Orientation Index that incorporated various socio-political factors thought to be associated with the accounting value of Stewardship, a value not included in Gray's original dimensions. This second index is the Expanded IFRS Orientation Index. It is determined by taking a weighted average of the Composite IFRS Orientation Index, weighted at 80% plus scores for four sociocultural indices each weighted 5%. The indices are: (a) The Corruption Perception Index (CPI) provided by Transparency International, (Transparency International, 2013), (b) an adaptation of AON's political risk ratings by which the higher a country's political risk, the lower the score it receives, (AON, 2013), (c) the United Nation's Education Index adjusted for inequalities, (Malik, 2013), and (d) the World Bank's Regulatory Index. (World Bank, 2013) The current study applies this methodology for determining a country's Composite IFRS Orientation Index and Expanded IFRS Orientation Index, discussed above, to each of the countries examined.

Results and Analysis

Hofstede cultural dimension scores are provided for each of the four Central European countries in Table 2, as they were in the earlier IFRS BRIC study. (Borker, 2012a) For comparison purposes, scores are provided for four non-BRIC countries, three developed countries, German, Japan and the United Kingdom and one developing country, Pakistan.

	PDI	IDV	MAS	UAI	LTO	IVR
BRICK countries:						
Brazil	69	38	49	76	44	59
Russia	93	39	36	95	81	20
India	77	48	56	40	61	26
China	80	20	66	40	118	24
Countries for Comparison:						
Germany	35	67	66	65	83	40
Japan	54	46	95	92	88	42
Pakistan	55	14	50	70	50	0
United Kingdom	35	89	66	35	51	69

Table 2: Hofstede Cultural Values by Country

The United Kingdom was selected as the home of International Accounting Standards Board (IASB). Its scores here and throughout the study are representative of the Anglo-American countries (United States, Australia, Canada and New Zealand) all of which share similar cultural dimensions. Gray accounting value dimensions scores are calculated for each country based on weightings that reflect Gray's own discussion of the four Hofstede dimensions. (Gray, 1988) These accounting dimension scores are provided in Table 3.

Gray Dimension Scores Based on Weighted Average of 4 Hofstede Dimensions				
	Conservatism	Uniformity	Professionalism	Secrecy
BRIC Countries:				
Brazil	64	64	50	63
Russia	79	76	38	77
India	48	48	66	51

China	52	59	55	58
Countries for Comparison:				
Germany	44	42	72	39
Japan	57	65	49	54
Pakistan	63	69	45	64
United Kingdom	27	21	93	24

Table 3: Gray Accounting Values by Country

Actual quantitative computations of Gray cultural accounting dimensions were not available in the earlier BRIC study. With regard to Professionalism, a dimension associated with a favorable IFRS dimensional portfolio (Borker, 2012a), Russia scores lowest thus highest for Statutory control, while India scores the highest for Professionalism. In the middle are Brazil and China, with China slightly higher than Brazil. High scores for Conservatism, Uniformity and Secrecy are dimensional values that are opposite to the favorable IFRS portfolio, and thus low scores indicating Optimism, Flexibility and Transparency characterize the IFRS favorable values. For all of these dimensions, India's scores rank most favorable (lowest) and Russia's least favorable (highest), with Brazil and China again in the middle, with China more favorable than Brazil.

The full significance of these observations is revealed quantitatively in scores for the Composite IFRS Orientation Index Scores which are calculated for each country based on the Gray dimension scores above, adjusted for dimensions with a negative relationship to IFRS orientation. The derivation of this index is provided in Table 4 below.

Composite IFRS Orientation Index Derived per Formula					
	Conservatism	**Uniformity**	**Professionalism**	**Secrecy**	**Composite IFRS Orientation Index**
BRIC Countries:					
Brazil	51	49	50	49	50
Russia	36	37	38	35	36
India	67	66	66	61	65
China	63	54	55	53	56
Countries for Comparison:					
Germany	71	72	72	73	72
Japan	58	49	49	58	54
Pakistan	35	29	30	30	31
U.K.	88	92	93	87	90

Table 4: IFRS Composite Index by Country

Here all of the Gray adjusted dimensional components are provided as positive values, where high indicates an IFRS favorable score. The simple average of these components scores represents the score for the Composite IFRS Orientation Index. Among the BRIC countries, India has by far the highest composite score and Russia the lowest, with China and Brazil in the middle, and China above Brazil.

Table 5 presents a ranked list of countries for the Composite IFRS Orientation Index.

Rank		**Composite IFRS Orientation Index**
1	United Kingdom	90

2	Germany	72
3	India	65
4	China	56
5	Japan	54
6	Brazil	50
7	Russia	36
8	Pakistan	31

Table 5: Composite IFRS Orientation Index Scores by Magnitude

In this table, BRIC countries are highlighted in white and non-BRIC countries in grey. These scores show that all BRIC countries score well below the developed countries, United States and Germany, and well above Pakistan. The BRIC group is seen to be competitive with developed country Japan on this measure, with India and China both exceeding Japan's Composite IFRS Orientation Index.

The Composite IFRS Index can be combined with four additional sociocultural factors to produce the Expanded IFRS Orientation Index presented in Table 6. These factors are listed under the headings "Corruption," "Political Risk," "Education," and "Regulation Index" with each factor having a 5 percent impact weighting for a total of 20% with the value of the Composite IFRS Index having an 80% weighting. The combined effect of these sociocultural factors on the BRIC countries is, with the exception of Russia, to lower the previously derived Combined IFRS Composite Index. This can be seen in Table 6 below.

Expanded IFRS Orientation Index based on Weighted Average of Composite IFRS Orientation Index and Four Additional Factors						
	Composite IFRS Orientation Index	**Corruption**	**Political Risk**	**Education**	**Regulation Index**	**Expanded IFRS Orientation Index**
Weightings	**80% wgt**	**5% wgt**	**5% wgt**	**5% wgt**	**5% wgt**	**100%**
BRIC Countries:						
Brazil	50	46	70	50	7	48
Russia	36	30	50	78	21	38
India	65	39	70	26	6	59
China	56	42	50	48	36	54
Countries for Comparison:						
Germany	72	85	90	93	89	75
Japan	54	80	90	86	86	60
Pakistan	31	29	-10	22	24	28
U.K.	90	80	90	81	98	90

Table 6: Expanded IFRS Orientation Index by Country/Category

India's score drops the most (6 points), while Brazil and China each drop by 2 points. India's steeper drop is attributable to having the lowest component scores for education and regulation. Russia, on the other hand, has a 2 point increase, due primarily to its high score for education. Of the comparison countries, the three developed countries, Germany, Japan and the United Kingdom, all maintain or improve their scores due to high component scores for all sociocultural factors. In contrast, Pakistan, a developing country with least favorable scores for corruption, political risk and education of all the countries observed, shows a decline of 3 points.

Table 7 provides a ranked list of countries for the Expanded IFRS Orientation Index. BRIC countries are highlighted in white and non-BRIC countries in grey.

Rank	Country	Expanded Composite IFRS Index
1	United Kingdom	90
3	Germany	75
4	Japan	60
5	India	59
6	China	54
7	Brazil	48
8	Russia	38
9	Pakistan	28

Table 7: Expanded IFRS Orientation Index Scores by Magnitude

The score rankings in Table 7 reflect the similar ranking pattern to Table 6, except that Japan now joins its fellow developed countries United States and Germany as exceeding BRIC country scores for this measure. The reason for this is that Japan earns superior scores on all socio-cultural categories to those of the BRIC countries. Pakistan, in contrast, has lower scores than the BRIC countries on all socio-cultural categories with the exception of regulation. The relative ranking of the BRIC countries among themselves is the same for the Expanded IFRS Orientation Index as for the Composite IFRS Orientation Index. This is because all of the BRIC countries have relatively low (unfavorable) scores on corruption, political risk, education, and regulation. All the BRIC country scores on the Expanded IFRS Orientation Index, therefore, show a 2 to 6 point decline from the respective scores for the Composite IFRS Orientation Index. India, which remains the highest scoring BRIC country, shows the greatest decline, i.e., 6 points.

Discussion

In the earlier study of IFRS in the BRIC countries (Borker, 2012a), it is noted that Russia and Brazil exhibit cultural values associated with the development of accounting systems characterized by statutory control, uniformity, conservatism, and secrecy that are roughly opposite to the accounting values associated with IFRS, namely, professionalism, flexibility, optimism and transparency. It is further noted that India and China reflect values closer to IFRS values, although neither are entirely consistent with IFRS values, and that India has the strongest value of professionalism of the BRIC countries. The study contrasts the cultural accounting values of all four of the BRIC countries to those of more advanced developed countries and concludes that Russia and Brazil, and, to a lesser extent, India and China have a specific cultural obstacles to overcome in their implementation of IFRS.

Composite IFRS Orientation Index (CIOI) – the Four Gray Accounting Dimensions

The current study has revisited these issues by applying a methodology that provides quantitatively measurable results. The quantitative scores on the Composite IFRS Orientation Index show that, based on Grey's four cultural accounting dimensions, Brazil and Russia share a lower level of IFRS orientation than India and China. However, with these new measures, it can be seen that Brazil, at 50, is noticeably higher than Russia at 36 for IFRS orientation. Similarly, we can see that India, at 65, is higher than China, at 56. Examining the measures for the four adjusted Grey accounting dimension components of these scores provides insights into the reasons for these differences. For example, while Brazil and Russia both have lower scores for each of the Grey dimension components, Brazil's scores on all four dimensions are noticeably

higher than those for Russia. In fact, Brazil's composite and individual component scores are actually closer to those of China than those of Russia. Looking at India and China, we see that China's overall ranking and three of its dimensional component scores are really closer to Brazil than they are to highest ranking India. The only exception is for the conservatism, where China adjusted score, at 63 (tending toward optimism), is closer to India, at 67, than to Brazil, at 51.

Given this information, one might revise one's view of the BRIC groupings to a first tier of India as the most oriented to toward IFRS values, followed by China and Brazil as a second tier and finally by Russia as a third and bottom tier. If we include the comparative non-BRIC country data, we see that the United Kingdom and Germany are clearly above all of the BRIC countries for Composite IFRS Orientation. Although, India, the first tier country is, at 65, within 7 points of Germany (closer than it is to China). On the other hand, Japan, the third of the developed economies, with a score of 54, falls right in the middle of the BRIC second tier grouping of China (56) and Brazil (50). Pakistan, which, at 31, is the lowest ranking of all the countries for Composite IFRS Orientation, can be seen as occupying the third tier with Russia (36).

Expanded IFRS Orientation Index (EIOI) – Adding a Fifth Stewardship Dimension

The EIOI adds a fifth dimension to the evaluation of IFRS orientation called *stewardship,* which is averaged with the EIOI at a 20% weighting. Numerically, the score for stewardship is derived from the simple average of three sociocultural indices, corruption, political risk, education, and regulatory environment. High scores are designed to represent favorable scores. For example, higher scores for corruption and political risk indicate lower corruption and political risk, respectively, while higher scores for education and regulatory environment indicate higher level education and a more favorable regulatory environment, respectively. Since the combined value of stewardship dimension is not explicitly shown anywhere in the results tables, it is represented below in Column F of Table 8 below:

Revised Table 6
Expanded IFRS Orientation Index
Including Explicit Column for Stewardship

	Composite IFRS Orientation Index Col A	Corruption Col B	Political Risk Col C	Education Col D	Regulation Index Col E	Stewardship Index √ Col F (Avg of B, C, D, and E)	Expanded IFRS Orientation Index Col C (.8*A+.2*F)
Weightings	**80% wgt**	**5% wgt**	**5% wgt**	**5% wgt**	**5% wgt**	**20%**	**100%**
BRIC Countries:							
Brazil	50	46	70	50	7	43	48
Russia	36	30	50	78	21	45	38
India	65	39	70	26	6	35	59
China	56	42	50	48	36	44	54
Countries for Comparison:							
Germany	72	85	90	93	89	89	75
Japan	54	80	90	86	86	86	60
Pakistan	31	29	-10	22	24	16	28
U.K.	90	80	90	81	98	87	90

Table 8: Revised Table 6 including Stewardship

In this table, the columns highlighted in white are Column A, the CIOI scores, Column F, the Stewardship dimension score derived from columns B-E, and column c, the EIOI scores. The

columns breaking out the four individual sociocultural index components of Stewardship are highlighted in grey. An examination of this new data indicates that there is a great divide between the stewardship index scores for the developed countries and the BRIC countries. The developed country scores cluster in a narrow range of 87 to 89 points, while the BRIC countries range from 35 to 45 points with a median of 44.5. Finally, developing Pakistan, at 16, occupies a position well below the BRIC countries. This indicates that, in addition to adjusting to the IFRS favorable Gray accounting values of optimism, flexibility, professionalism and transparency, the BRIC countries have a long road ahead of them to rise to a level of stewardship through political stability, reduced corruption and improvements in education and regulatory policies that will facilitate culturally meaningful implementation of IFRS.

Is this Information Actionable?

The information provided in the above analysis can lead to actions that can improve over time the adoption/convergence and successful implementation of IFRS. The analysis of individual country scores for each of the four Gray cultural accounting dimensions and of the Composite IFRS Orientation Index allows us to pinpoint areas where there is a relative need for improvement. For example, in a statutory control country with a low value for professionalism, like Russia, it is important to continue to develop professional education and training programs to expand this IFRS favorable value of professional accountants over bookkeepers beyond the Big 4 and a few large accounting firms to the rank and file accountants and auditors in the country. Generally, the types of actions that need to be taken for challenges in the area of IFRS favorable Gray accounting values were enumerated in the previous IFRS paper:

- Establish culturally sensitive education and professional training programs
- Establish culturally focused upgrade programs for existing accounting professionals
- Empower national accounting standard setting bodies to integrate the values of professionalism, flexibility, optimism and transparency into their professional activities
- Set realistic timeframes and deadlines for the transition to IFRS to allow the local accounting culture to catch up with new IFRS reforms
- Establish a comprehensive change management program for accounting professionals, businesses, government and the public with the necessary change management tools to make a successful transition.
- Create robust support infrastructures for IFRS implementation. (Borker, 2012a)

The analysis of the scores for the four sociocultural components of stewardship in the discussion of Table 8 above offers an opportunity to address important areas of social, business and political reform that need to be address in developing/emerging economies like the BRIC countries. Reforms in the areas of political and social corruption, efforts to achieve stable government policies that reduce a country's perceived and real political risk, educational reforms aimed at broadening, deepening and democratizing national educational programs and efforts to reform the regulation of business in a manner that facilitates fairness and efficiency are all areas of action that can contribute to improving the sociocultural infrastructure of stewardship that provides the soil in which responsible IFRS based financial reporting can grow.

Conclusion

Revisiting the issue of cultural accounting values in the BRIC countries through the application of analytical tools not available at the time of the author's original IFRS BRIC paper (Borker, 2012a) has resulted in an analysis that at once confirms and expands our understanding of the relative cultural priorities of improving IFRS implementation among the BRIC countries. Quantitative measurement of the four Gray cultural accounting dimensions in terms of their

contribution to a favorable orientation to IFRS accounting values has been achieved by application of the Composite IFRS Orientation Index.

This paper focuses on a comprehensive diagnostic methodology for identifying the relative cultural preparedness of each of the BRIC countries for successful implementation of IFRS. The same methodology can and has been applied to other countries for the same purpose. (Borker, 2014b) (Borker, 2014a) (Borker, 2015)

This analysis has been further enhanced through the inclusion of the four sociocultural factors of corruption, political risk, education and regulatory environment forming fifth accounting dimension designated as stewardship. The results of this analysis shows that beyond Grays four accounting dimensions, a country's sociocultural environmental infrastructure plays an important role in achieving meaningful improvements in the success of IFRS implementation. Thus, for the BRIC countries, progress involves identifying and resolving challenges in the professional culture of accounting and financial reporting and must be accompanied by efforts to achieve national reforms of the problems of corruption, political instability, deficient education and economically crippling regulation.

Research Limitations and Direction for Further Research

This research is limited by the assumptions made by the author as to reliability of the methodology to produce meaningful measures of the relative cultural advantages of the individual countries to successfully implement IFRS using data from Hofstede, Gray, and other sociocultural sources. Furthermore, full country Hofstede world value dimension data is limited to a set of seventy-two countries that does not include the Union of South Africa, later proposed as a member of BRICS.

Further research should focus on opportunities for additional world comparative cultural value data that will confirm, refute or expand this methodology. Also, IFRS development in each of the BRIC countries should be continuously be monitored for insights into the relevance of the culturally based expectations set in this paper.

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